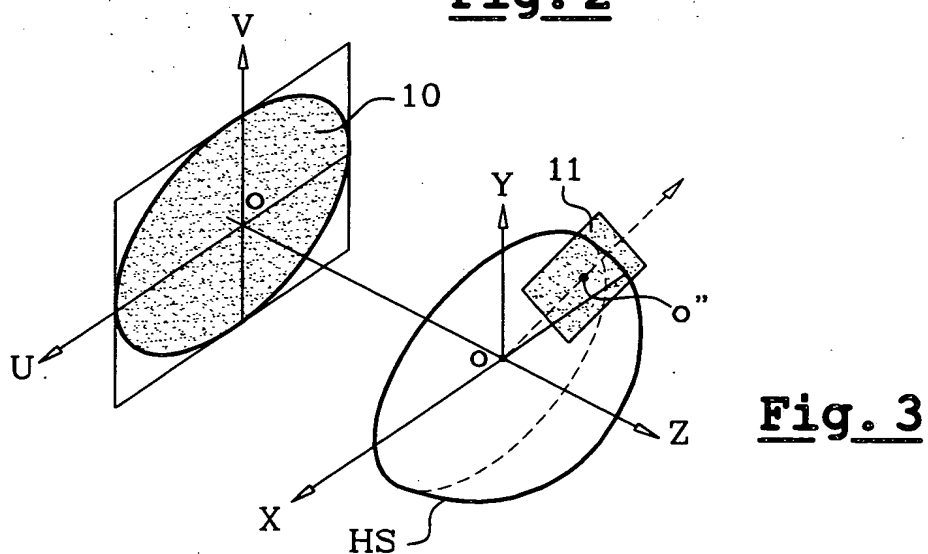
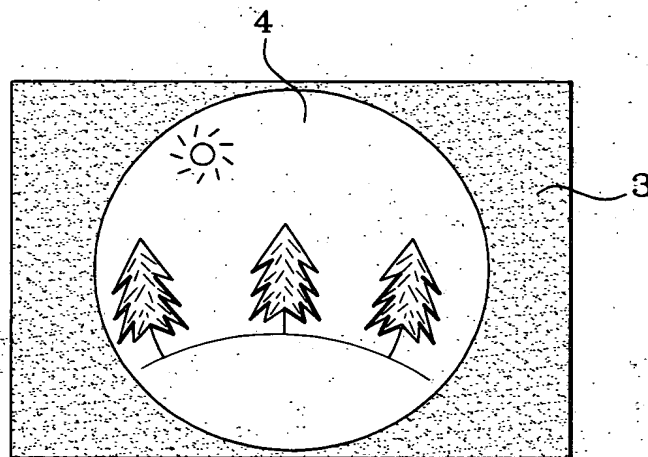
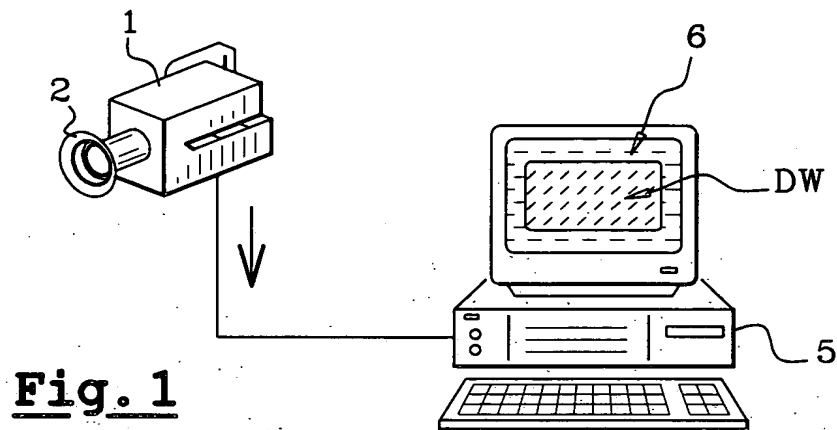


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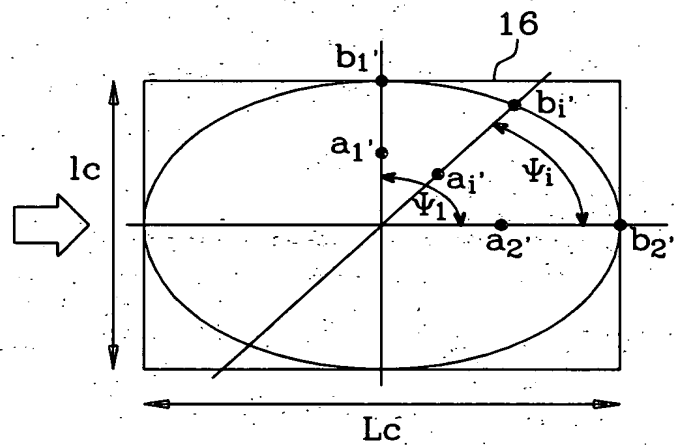
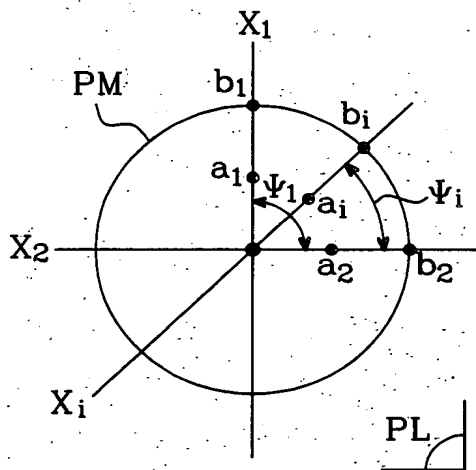
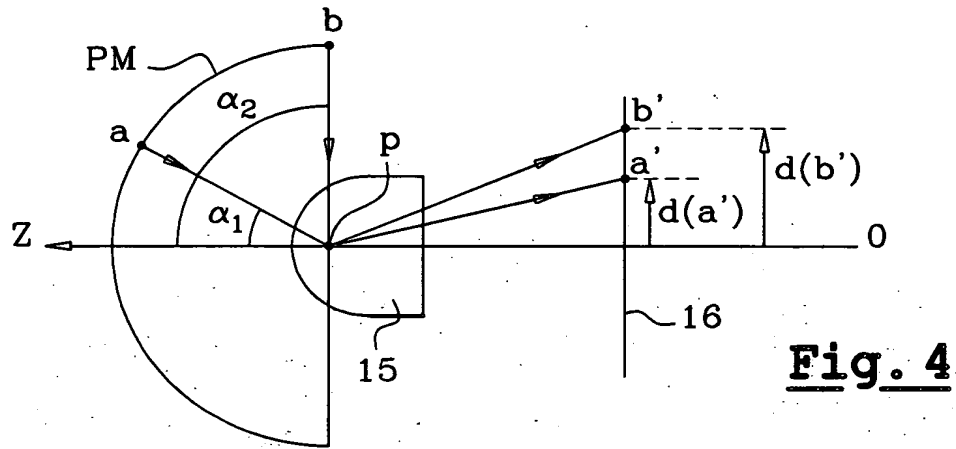
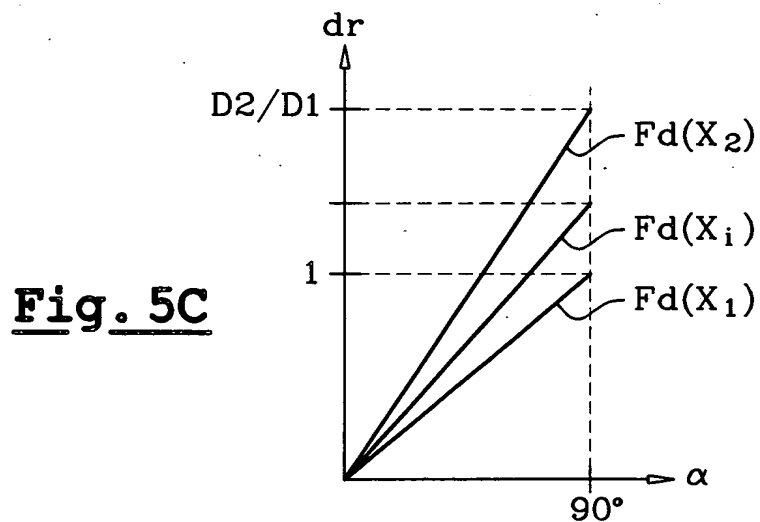


Fig. 5A

Fig. 5B



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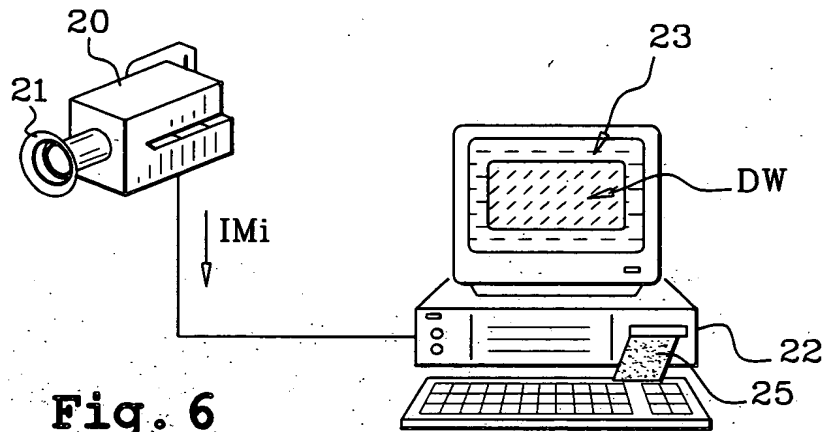


Fig. 7A

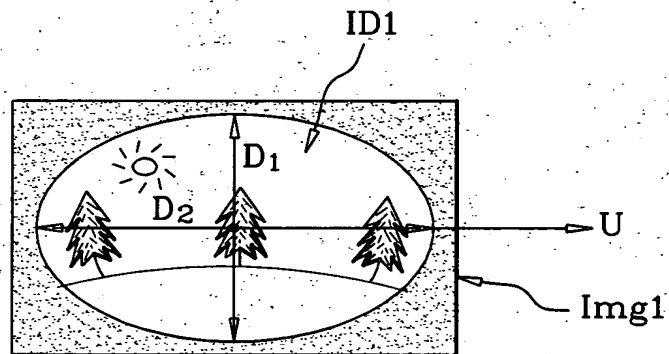
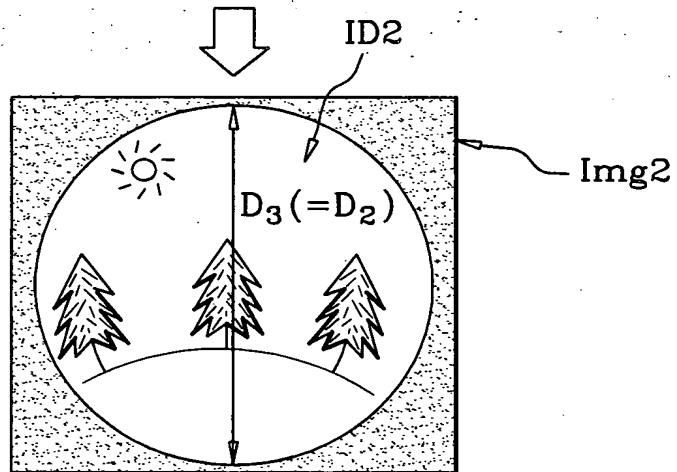
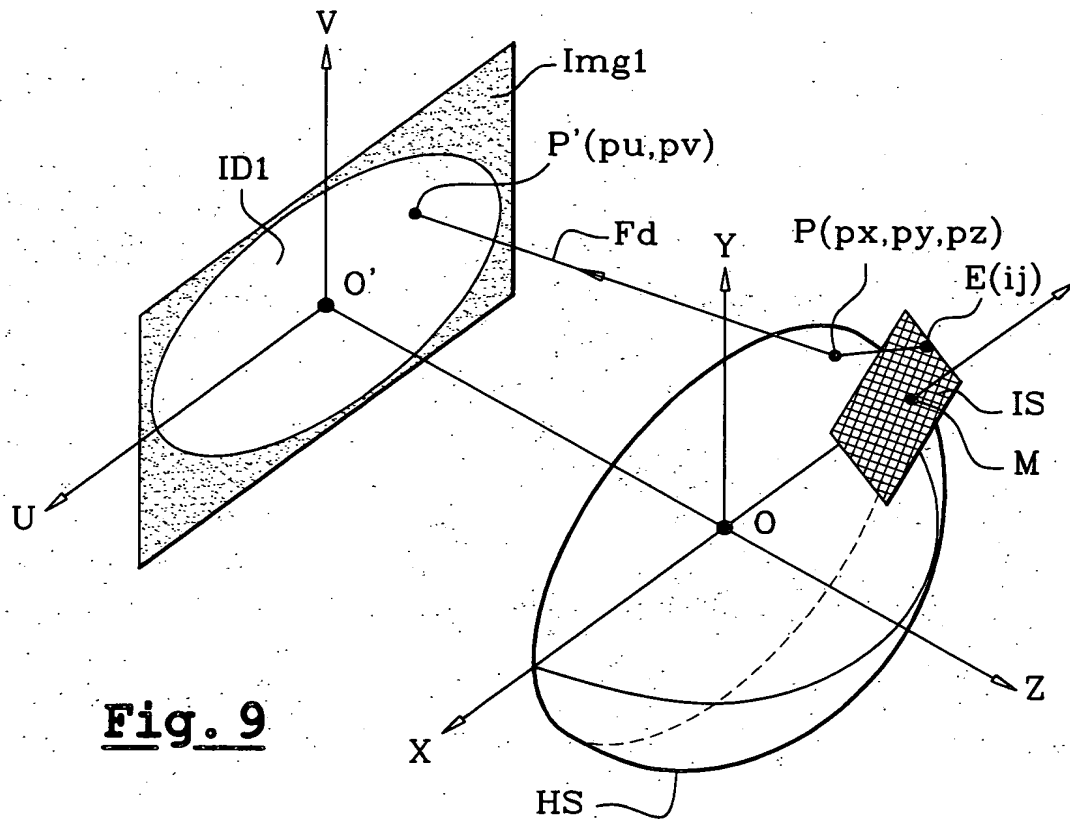


Fig. 7B



<p>S1 – Acquisition</p> <ul style="list-style-type: none"> - Capturing a panoramic image by means of a still digital camera or a digital video camera equipped with a panoramic objective lens according to the present invention ? Obtaining an image ellipsoid (D1, D2)
<p>S2 - Transfer of the image file into a computer</p> <ul style="list-style-type: none"> - Transfer of the image file of the image ellipsoid into a microcomputer, - Storage in the auxiliary storage (optional)
<p>S3 - Correction of the image ellipsoid</p> <ul style="list-style-type: none"> - Transfer of the image points of the image ellipsoid into a virtual image disk of radius D2 comprising more image points than an image disk of radius D1, ? Obtaining a classical image disk
<p>S4 – Digitisation</p> <ul style="list-style-type: none"> - Transfer of the image points of the image disk into a system of axes OXYZ in spherical coordinates ? Obtaining a hemispherical panoramic image
<p>S5 - Interactive display</p> <ul style="list-style-type: none"> - Determination of the image points of an image sector to be displayed - Display of the image sector on a display window - Detection of the user's actions on a screen pointer or any other control means, - Detection of the user's actions on keys for image enlargement, - Modification of the sector displayed (sliding the image sector displayed on the surface of the hemisphere and/or shrinking/expanding the image sector displayed)

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S1 – Acquisition

- Capturing a panoramic image by means of a still digital camera or a digital video camera equipped with a panoramic objective lens according to the present invention
- ? Obtaining an image ellipsoid

S2 - Transfer of the image file into a computer

- Transfer of the image file of the image ellipsoid into a microcomputer,
- Storage in the auxiliary storage (optional)

S3' – Interactive display with implicit correction of the distortions of the initial image

A - Determination of the colour of the points $E(i, j)$ of an image sector using the points $P'(pu, pv)$ of the image ellipsoid:

- 1- Determination of the coordinates E_x, E_y, E_z in the coordinate system OXYZ of each point $E(i, j)$ of the image sector,
- 2- Determination of the coordinates px, py, pz of points $P(px, py, pz)$ corresponding to the points $E(i, j)$ projected onto a hemisphere,
- 3- by means of the distribution function F_d of the objective lens, determination of the coordinates, in the coordinate system O'UV of the image ellipsoid, of the points $P'(pu, pv)$ corresponding to the projection of the points $P(px, py, pz)$ on the image ellipsoid,

B - Presentation of the image sector in a display window

C - Detection of the user's actions on a screen pointer or any other control means

D - Detection of the user's actions on enlargement keys

E - Modification of the image sector displayed (moving and/or shrinking/expanding the image sector)

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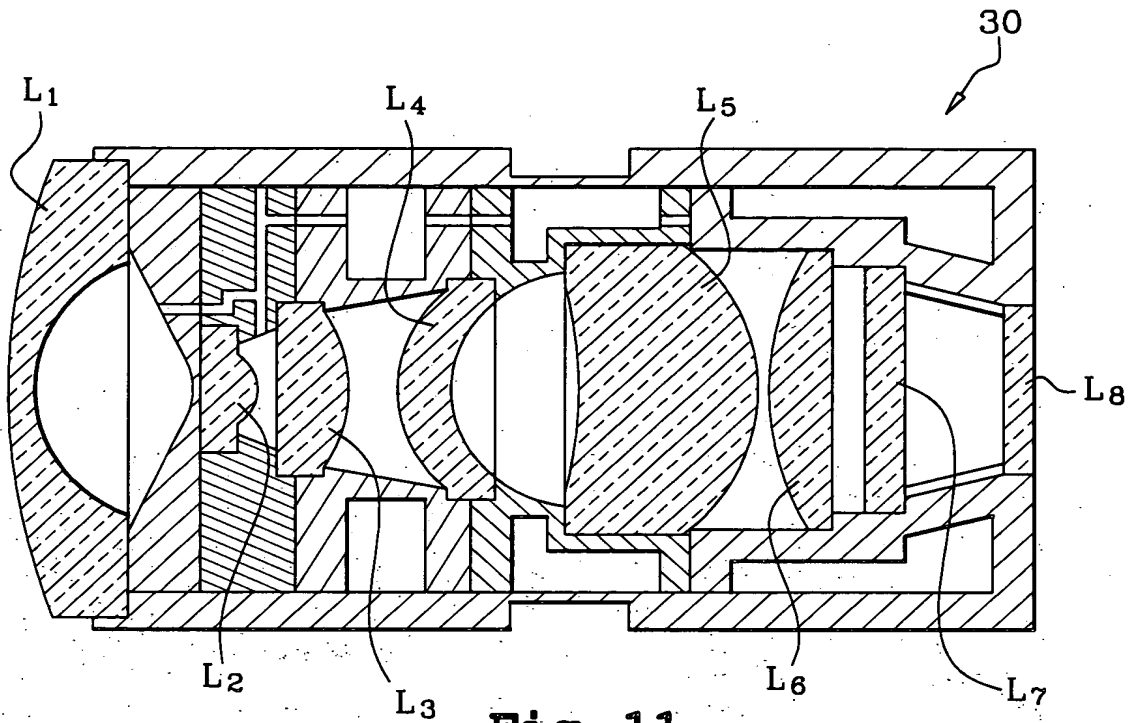


Fig. 11

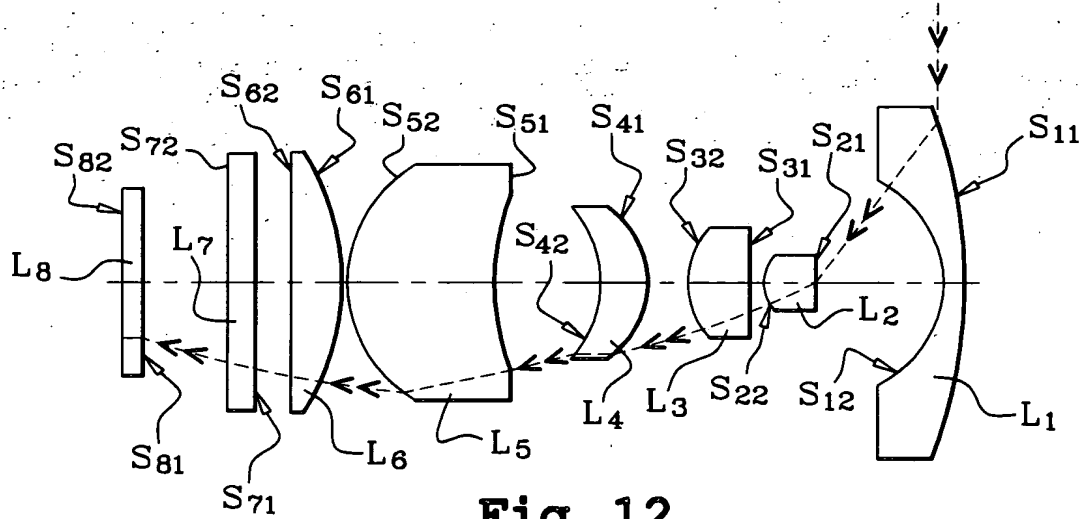


Fig. 12

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Fig. 13

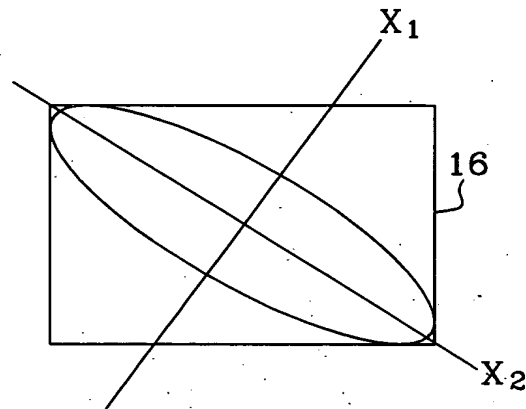


Fig. 14A

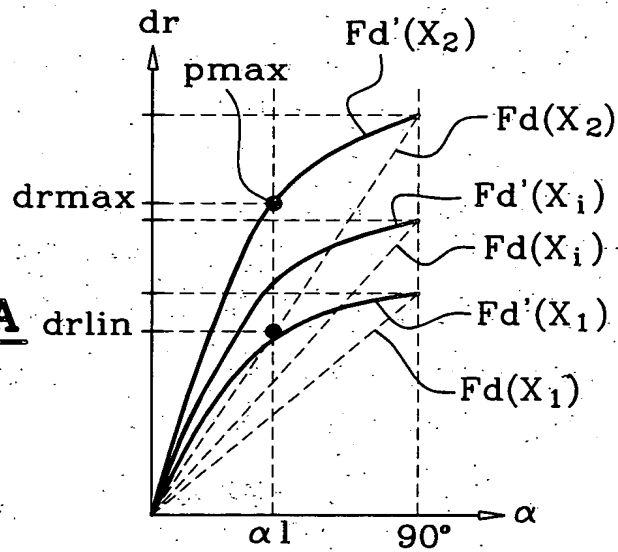
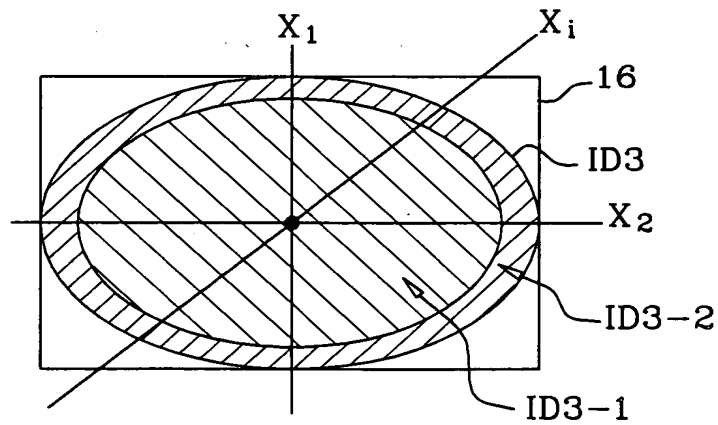


Fig. 14B



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Fig. 15A

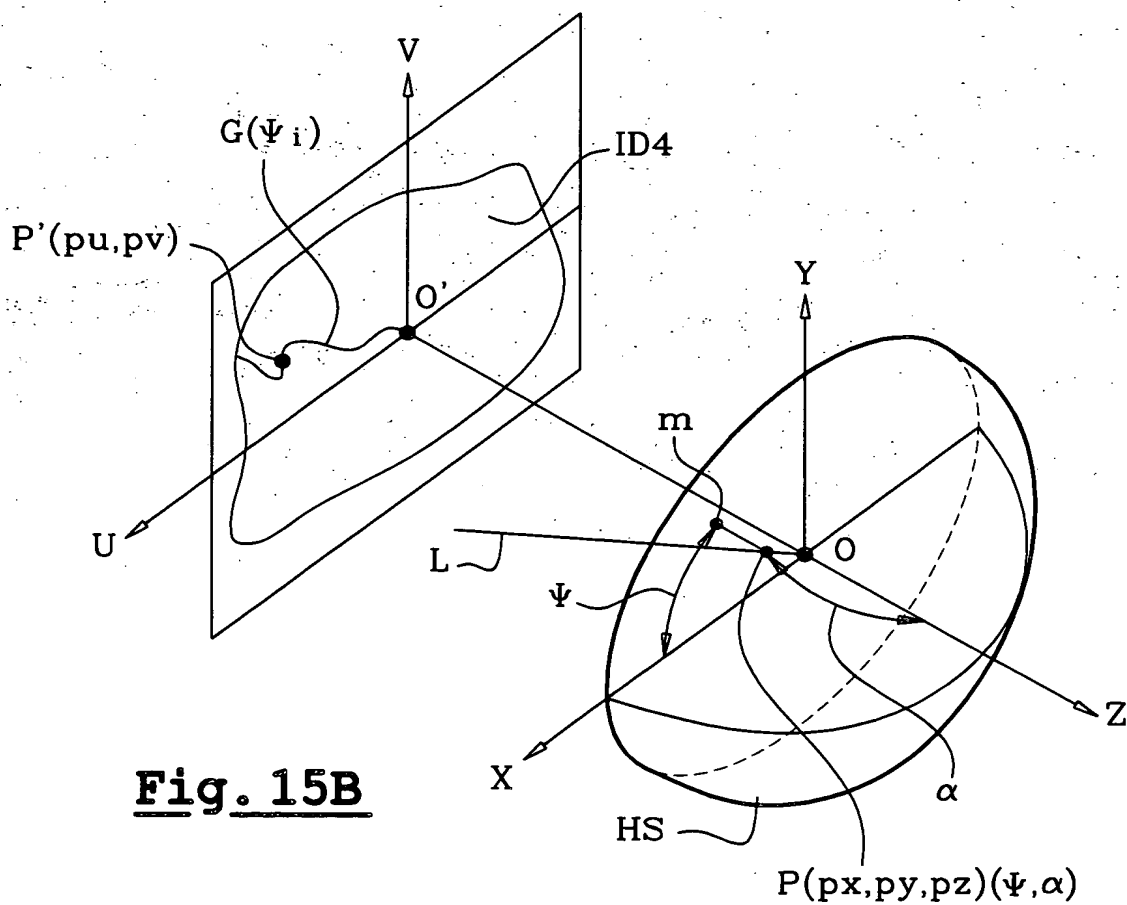
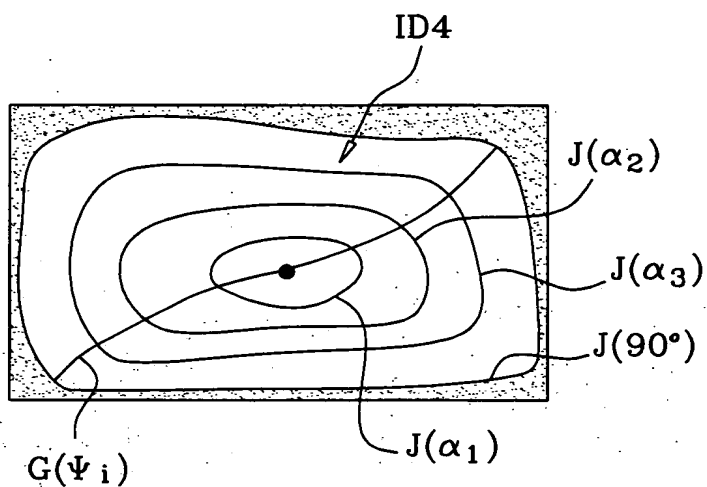


Fig. 15B